

PROJECT SUMMARY SHEET

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WATERSHED: Statewide

HYDROLOGIC UNIT CODE: N/A

MDL Under Development Pending Implementation

<u>PROJECT TYPES</u> <input type="checkbox"/> STAFFING & SUPPORT <input type="checkbox"/> WATERSHED <input type="checkbox"/> GROUNDWATER <input checked="" type="checkbox"/> I&E <input type="checkbox"/> OTHER	<u>WATERBODY TYPES</u> <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> LAKES/RESERVOIRS <input type="checkbox"/> RIVERS <input type="checkbox"/> STREAMS <input type="checkbox"/> WETLANDS <input type="checkbox"/> OTHER	<u>NPS CATEGORY</u> <input type="checkbox"/> AGRICULTURE <input type="checkbox"/> URBAN RUNOFF <input type="checkbox"/> SILVICULTURE <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RESOURCE EXTRACTION <input type="checkbox"/> STOWAGE/LAND DISPOSAL <input type="checkbox"/> HYDRO MODIFICATION <input type="checkbox"/> OTHER
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PROJECT LOCATION: LATITUDE MIN. N/A LONGITUDE MIN. N/A

SUMMARIZATION OF MAJOR GOALS:

The goal of the ND Eco-Ed project is to provide a statewide uniform educational program for elementary school students. Currently the state does not have an approved curriculum for environmental education. The material focuses on non-point source pollution (NPS) and best management practices (BMPs) with special emphasis on water quality.

PROJECT DESCRIPTION:

ND Eco-Ed is a hands-on, problem-solving environmental education program. The students are divided into groups and rotated through 5 required stations dealing with wetlands, woodlands, water quality, soils, and grasslands – each linked to water quality problems and solutions. The sessions are facilitated by professionals who have the most up-to date information and teaching tools. These sessions are usually followed by a wildlife program or a Project TREES presentation. The students attend during classroom hours and are accompanied by their classroom teachers and parent/chaperones.

At present, 40 counties participate in the Eco-Ed program with approximately 4,500 students 200 teachers, and 380 parent/chaperones per year. This represents 135 schools. At this level of education, students are studying earth science in their classrooms. Following Eco-Ed camps or tours, their teachers are able to link specific experiences to their teaching materials. Eco-Ed is “hands-on” and provides water quality education that is unavailable in a normal classroom setting.

FY 319 funds requested (base)	\$ 289,098	(incremental)	\$0
Match (Cash)	\$ 57,000	Match (In-Kind)	\$135,732
Other Federal Funds	\$		
Total project cost	\$ 481,830	\$319 Funded Part Time Personnel	1

1.0 PROJECT PROPOSAL SUMMARY SHEET

See cover sheet.

2.0 STATEMENT OF NEED

- 2.1 The Barnes County Soil Conservation District initiated the Eco-Ed Program in 1988. EPA Section 319 I&E grant funds were used in 1990 through 1997 as a pilot program. During this time, a standard, uniform program was developed. The program was expanded statewide in 1997, being funded by EPA Section 319 I&E Grant funds with monetary assistance from North Dakota Wetlands Trust. The expansion to a statewide project was a secondary goal identified in the FY95 Eco-Ed Camp Project. The project has been funded since that time by EPA grant funds and statewide soil conservation districts. See Appendix, Attachment 1a. Goals Achieved.

Students attend Eco-Ed as part of their classroom studies; therefore sponsors work closely with the school administrators and teachers to provide quality information. Classroom teachers overwhelmingly state that there is a need for this type of “hands on” water quality education in the curriculum since they do not teach any “water quality lessons” in the classrooms. They have no textbooks or teaching materials to provide water quality education.

Classroom teachers have also stated that students in the classrooms are not exposed to the technical expertise and hands-on learning that is provided at Eco-Ed. ND Superintendent of Public Instruction, Dr. Wayne Sanstead has endorsed the Eco-Ed program as “filling a gap in public education”. Eco-Ed is a uniform program – all students receive the same information whether they live in Williston or Wahpeton. This is important because the students are not likely to spend their entire lives in one area of the state or county.

The Non-point Source Pollution (NPS) Management Program has recognized the long-term value of NPS Information/Education (I/E) projects. For youth education projects in particular, the NPS Program’s educational focus is evident by the inclusion of the ECO ED Program under Objective 1 of the Information and Education (I/E) section of the April 2010 NPS Program Management Plan. Objective 1 of the NPS Management Plan’s I/E Section identifies the ECO ED Program as one of the ongoing youth education programs that will continue to receive technical and financial support.

It has been found that urban runoff contributes greatly to pollution of our lakes, rivers, and streams. The Eco-Ed program focuses on urban as well as agricultural pollutants. The students learn about woodlands, wetlands, soils, rangelands, and water quality and how all these components work together for a healthy eco-system. It is important for our audience to realize that everyone has a role in the management of our natural resources. The NPS pollution and water quality knowledge gained at this stage in a student’s life will carry over to the day when they become land managers and decision makers.

Due to the fact that Objective 1 of the NPS Management Plan’s I/E Section of the April 2010 NPS Program Management Plan recognizes the importance of the North Dakota ECO ED Program it is obvious that this program plays an important role in the education of our youth and our general public.

- 2.2 . The North Dakota NPS Pollution Management Plan has identified this program as an integral piece of its State I/E Strategy for youth education. The following table outlines the programs it includes and how this specific program fits the strategy:

Program	Primary Grade Level	Primary Audience
Project Wet	K-12	Teachers
Project Trees	K-6	Students and Teachers
Statewide Eco-Ed	6-8	Students, Teachers and Chaperones
ND Envirothon	9-12	Students and Advisors

These programs are not limited to a specific grade level, but a majority of their programming is presented to the grade level(s) noted in the table. Each program serves a separate audience yet builds on the previous program. By using individual programs as building blocks we can provide NPS educational materials to more students over the entire span of their education.

This grade-level system also increases the amount of hands-on education as the students advance in their education. North Dakota students are studying Earth Science in their classrooms during their sixth grade year. The Eco-Ed program, with emphasis on water quality, fits their classroom curriculum.

An additional benefit is the inter-action of classroom teachers with facilitators who are environmental professionals. The teachers are able to take ideas and examples back to the classroom through the various hand-out materials distributed by the facilitators. A CD is also provided to the teachers containing a textbook and website addresses of resource materials.

- 2.3 Each soil conservation district has the option of sponsoring a 1-day tour or a 2-day camp. At present, 5 counties sponsor 2-day camps while 31 counties conduct the 1-day tour in place of their old "conservation tours". Using the "Eco-Ed format", we now have a uniform agenda. (See Appendix, Attachment 1b– ND Counties Participating)

While the 1-day tours cover the basic requirements of the program, the 2-day camps have more time to reinforce the topics by using educational and entertaining presentations and facilitators. Two-day camps also have time to test the students on what they have absorbed and what needs to be emphasized more clearly. (See Appendix, Attachments 1c and 1d - Examples of 1 or 2 day camps.)

3.0 PROJECT DESCRIPTION

3.1 Project Goal

The goal of the project is to increase participants' understanding of the relationship between the natural resources in the state and the importance of wise management. The public needs to understand that water is our most important natural resource and, as such, it is most vulnerable to non-point source pollution. This project educates students, classroom teachers, and parent/chaperones about NPS pollution and the effects it could have on our water supply. Management options are reviewed and discussed with participants using models and actual observations.

3.2 Project Objectives

Objective 1. Maintain a system to provide technical/financial assistance to Conservation Districts or other groups who wish to conduct Eco-Ed camps or tours in North Dakota.

Task 1. The sponsor will provide Coordinator who is knowledgeable with all aspects of the Eco-Ed Program to assist groups in the organization and implementation of the Eco Ed program. (See Appendix, Attachment 2a - Coordinator job description.)

Salary - \$16.00 per hour X 1040 hours per year = \$16,640

Fringe: FICA Taxes, NDPERS, Health Ins. - \$5,360

Product: State Coordinator (Part-time – 1040 documented hrs. per year)

Milestone: Years 1, 2, and 3

Cost per year: \$22,000

Total cost: \$66,000

Task 2. Update program guidelines for the types of educational activities that are eligible for FA/TA assistance under the Program.

Product: Up-to-date information and activities

Milestone: Years 1, 2, and 3

Cost: \$0.00 (This cost covered by Coordinator and partners)

Task 3. Identify additional districts/groups that will benefit by conducting a camp/tour on an annual basis. Provide technical assistance in the documentation of financial reports and conducting the initial camp/tour.

Product: 1 new camp or tour per year or 3 new camps during project period.

Approximately 60 students added per year or 180 additional students in the 3 year period of the grant.

Milestone: Year 1, 2, and 3

Cost: \$0.00 (This cost covered by Coordinator salary)

Task 4. Maintain the existing statewide program: assist sponsors with their on-going Eco-Ed programs by providing financial/technical assistance. (See appendix for supplemental budget table and cost estimates.)

Product: Continued supervision and assistance to the sponsoring districts:

Six 2-day camps – 250 students. Forty 1-day tours – 2800 students

Milestone: Years 1, 2, and 3

Cost: \$75 per 300 students for 2-day camp - \$22,500

\$40 per 2900 students for 1-day tour - \$116,000

Per year: \$138,500

Total Cost: \$415,500

Task 5. Compile information and prepare reports on the progress of the program. Provide the required reports to the NDDH to update the reporting tracking system (GRTS).

Product: Annual, and Final Reports.

Milestone: Years 1, 2 and 3

Cost: \$.00 (This cost covered by Coordinator salary)

Task 6. Conduct statewide workshops for program participants and prospective program participants to compile comments and facilitator lists and to provide information on necessary documentation. Workshops will be held annually at ND Soil Conservation District Employees Assn. meeting. Mileage will be paid to special presenters.

Product: Program updates/accurate documentation.

Milestone: Years 1, 2, and 3

Per year: 0

Total Cost: 0

Task 7. The sponsor will seek additional avenues for financial partners who share conservation goals for a uniform, unbiased conservation education for North Dakota students. Prospective contacts are: ND farm cooperatives, chemical companies, seed companies and energy producers/suppliers.

Product: Private funding sources

Milestone: Years 1, 2, and 3

Total Cost: \$.0

3.3 PROJECT MILESTONES

(See Appendix 6 a.)

3.4 LEAD PROJECT SPONSOR

The Barnes County Soil Conservation District has been the lead sponsor for the Eco-Ed program since it's inception. The supervisors and staff are familiar with program requirements. The BCSCD has the ability to contract with districts to provide the service and grants associated with this project. BCSCD is funded with state and local funds.

4.0 COORDINATION PLAN

4.1 COOPERATING ORGANIZATIONS

The Barnes County Soil Conservation District employs a coordinator to promote the camps or tours, train local sponsors, assist in organizing each sponsor's first camp or tour. Camps and tours are randomly monitored to assure compliance and quality of the program. Barnes Co. SCD provides assistance in completing the financial requests which are necessary for sponsors to receive grant funds. All financial requests are reviewed by the State Coordinator. BCSCD also provides program development information.

Local Sponsors coordinate program with schools and teachers, provide camp locations, local match funds, and assist project coordinator in organizing and conducting each camp/tour. Sponsors work with the coordinator to maintain a quality Eco-Ed program. These local sponsors provide the 40% match either with cash or in-kind services.

Cooperating Organizations: (See Appendix, Attachment 2b - Facilitator Responsibilities)

- * North Dakota Department of Health-Information/Education coordinator will provide technical assistance, informational materials, and facilitation to assist this project
- * North Dakota Soil Conservation Districts – Co-Sponsors. Provide staff to plan the local camps and manage them; Secure camp or tour location, meals for participants, facilitators, etc; Provide financial reports and documentation to lead sponsor
- * North Dakota State Soil Conservation Committee – Technical advice
- * North Dakota Game & Fish – Supplies, facilitators, and technical advice
- * North Dakota State University - Supplies, technical advice, and facilitators
- * Natural Resource Conservation Service – Teaching tools, facilitators and advisors
- * North Dakota Forest Service – Tools, Supplies and facilitators
- * North Dakota Department of Health - Facilitators, materials, and technical planning assistance
- * United States Fish & Wildlife – Teaching tools, information, and facilitators
- * County Extension Offices - Technical assistance and facilitators

4.2 LOCAL SUPPORT

Schools and teachers overwhelmingly recommend the Eco-Ed program as a source of information for themselves and their students. Parents who are asked to act as chaperones are enthusiastic and willing to donate their time. (Two letters of support from teachers are included in the Appendix. See Appendix, Attachments 3a – 3b Teacher support. Other letters are on file and available for review.)

1. Martha Pfaff, Teacher at Litchville Elementary School
2. Jan Beauchman, Teacher at Washington Elementary School
3. Andrea Richman, Teacher at Maple Valley School
4. Ralph Dyrness, Administrator at St. Catherine's School

4.3 LETTERS OF SUPPORT

Four letters of support are included in the Appendix, (Attachments 4. a through 4. d.) All other letters of support are on file and available for review. Letters include recommendations from:

1. N. D. State Representative Ralph Metcalf
2. Dr. Wayne Sanstead, ND Superintendent of Public Instruction
3. United States Department of Interior – US Fish & Wildlife Service
4. North Dakota Forest Service
5. Coalition for Conservation & Environmental Education
6. North Dakota State Soil Conservation Committee
7. North Dakota Association of Soil Conservation Districts
8. Adams County SCD, Hettinger ND
9. Cavalier County SCD, Langdon ND
10. Foster County SCD, Carrington ND
11. Grant County SCD, Carson ND
12. Kidder County SCD, Steele ND
13. North Central SCD, Minnewaukan ND
14. Pembina County SCD, Cavalier ND
15. Richland County SCD, Wahpeton ND
16. Rolette County SCD, Rolla ND
17. Slope-Hettinger SCD, Mott ND
18. Stutsman County SCD, Jamestown ND
19. Wild Rice SCD, Forman ND

4.4 COORDINATION WITH EXISTING PROJECTS

Section 319 Project Foster County TREES (The Regional Environmental Education Series) will provide instruction, when possible, at the Eco-Ed Camps or Tours by conducting various water quality lyceum-style programs. Project TREES is a 319 I/E program geared to elementary-aged students. The program usually presented at Eco-Ed Camp is “Sam Ting.”

Project Wet is a ND State Water Commission project to train classroom teachers about the importance of water quality. Many of the water quality facilitators used at the camps are trained at Project Wet workshops.

Eco-Ed camps or tours may be conducted in coordination with SCD field days and existing watershed projects. Soil Conservation Districts sponsor field days to teach students about the wise use of natural resources. Eco-Ed requires the 5 main topics and lays down the format of what is taught and by whom.

The Eco-Ed camps are an integral part of the State’s Information/Education strategy because they are the second step in developing a population that has a wide based education of NPS pollution issues and the effects on water quality.

4.5 DUPLICATION OF EFFORTS

Currently there are no other NPS efforts that are similar in the state of North Dakota. Current educational efforts include Project Wet and Project Trees which are very complimentary to the Eco-Ed Camps. The Eco-Ed Camps are closely aligned with current school curriculum at the sixth grade level while Projects Wet and Project Trees are designed to be supplementary to the curricula. The Eco-Ed Camps and tours provide an in-depth, hands-on exposure on the relationship of wise natural resource use to water quality. In addition, the Eco-Ed program will act as middle-school training for students preparing to participate in Envirothon activities at the high-school level.

5.0 EVALUATION AND MONITORING PLAN

The effectiveness of the camp will be determined through the use of evaluation forms completed by the educators involved. The classroom teachers are professionals and are in daily contact with students. They are able to notice changes in attitudes and values towards natural resources and water. Evaluation forms are also received from parent/chaperones, facilitators, and students to develop a complete picture of the camp's progress. (See Appendix, Attachment 5 a - Evaluation Form)

In order to determine if students are learning about water quality at Eco-Ed, we have implemented a "before and after" quiz to test students' knowledge of water quality. Due to the limited time some of the students are at Eco-Ed, the quiz is supplied to classroom teachers before the actual day of the tour along with the request that they have their students complete it and bring it to Eco-Ed with them where they will be collected. The same quiz will be given to the students after camp, either by the teachers back in the classroom or, if time permits, at the camp before students leave. An example of this quiz is attached although it may be modified by facilitators and sponsors at the next Eco-Ed workshop. (See Appendix, Attachment 5 b – Pre-test and Exit Test)

Monitoring will be random on site evaluations by the project coordinator to assure project compliance.

6.0 BUDGET

(See attached budget tables on following pages.)

Section 319 Part 2 Non-Federal Budget

	1st year	2nd year	3rd year	TOTAL	State/Local		319 Funds
					Match		
Objective 1							
Personnel/Support :							
Task 1. Staff Hours	\$22,000	\$22,000	\$22,000	\$66,000	\$26,400		\$39,600
Task 2. Update Guidelines	\$0	\$0	\$0	\$0	\$0		\$0
Task 3. Identify Co-Sponsors	\$0	\$0	\$0	\$0	\$0		\$0
Task 4. Maintain Statewide Program	\$138,500	\$138,500	\$138,500	\$415,500	\$166,200		\$249,300
Task 5. Information, Reports	\$0	\$0	\$0	\$0	\$0		\$0
Task 6. Conduct Workshop	\$110	\$110	\$110	\$330	\$132		\$198
Task 7. Secure Outside Sponsors	\$0	\$0	\$0	\$0	\$0		\$0
Total 319 Non-Federal Budget	\$160,610	\$160,610	\$160,610	\$481,830	\$192,732		\$289,098

Budget Table for North Dakota Statewide Eco-Ed Project

Part 1. Funding Sources					Total
EPA Section 319 Funds					
FY 12 Section 319 Funds (FA)		1st Year	2nd Year	3rd Year	\$289,098
		\$96,366	\$96,366	\$96,366	
State/Local Match					
(1) Soil Conservation Districts (FA)		\$18,000	\$18,000	\$18,000	Sub-total \$54,000
(2) Soil Conservation Districts (In-Kind Match) **		\$40,244	\$40,244	\$40,244	\$120,732
(3) ND Association of SCDs (FA)		\$1,000	\$1,000	\$1,000	\$3,000
(4) NDSU Extension Service (TA)		\$2,000	\$2,000	\$2,000	\$6,000
(5) ND State Soil Conservation Committee (TA)		\$2,000	\$2,000	\$2,000	\$6,000
(6) ND Game & Fish (TA)		\$1,000	\$1,000	\$1,000	\$3,000
					\$192,732
Total Budget		\$160,610	\$160,610	\$160,610	\$192,732
					\$481,830
Other Federal Assistance					
(1) Natural Resources Conservation Service (TA)		\$5,000	\$5,000	\$5,000	\$15,000
(2) US Fish & Wildlife Service (TA)		\$5,000	\$5,000	\$5,000	\$15,000
(3) ND Department of Health (TA)		\$5,000	\$5,000	\$5,000	\$15,000
		\$15,000	\$15,000	\$15,000	\$45,000

FA: Financial Assistance

TA: Technical Assistance

**In-Kind Match: Soil Conservation Districts will include

District Supervisors time, teachers, volunteers,

Parent/chaperones and non-federally funded facilitators.